

TAXONOMY OF *ASCLEPIAS HIRTELLA* AND  
*A. LONGIFOLIA* (APOCYNACEAE)

Billie L. Turner

Plant Resources Center  
The University of Texas  
Austin, Texas 78713  
billie@uts.cc.utexas.edu

ABSTRACT

The taxonomy of *Asclepias hirtella* and *A. longifolia* is briefly reviewed. It is concluded that they are best treated as two very distinct varieties: *A. longifolia* var. *hirtella* (Pennell) B,L, Turner, **stat. nov.** and *A. longifolia* (Raf.) var. *longifolia*. The two taxa intergrade to a limited extent in southwestern-most Louisiana and closely adjacent Texas. Typical members of var. *longifolia* in Louisiana are confined to the five easternmost counties of that state; all other collections from elsewhere in Louisiana and eastern Texas are essentially typical elements of var. *hirtella*. A distribution map of the complex in North America is provided. *Phytologia* 90(2): 308-311 (August, 2009).

**KEY WORDS:** Apocynaceae, *Asclepias hirtella*, *A. longifolia*, Texas, Louisiana

---

The present contribution was occasioned by the appearance of a paper by White (2008) entitled, "*Asclepias hirtella* (Apocynaceae) newly documented for the flora of Texas." In this, he noted that the taxon had not been previously reported for the state of Texas, documenting the occurrence by a collection from Lamar County. He further commented that Turner et al. (2003) had mapped a Lamar Co. collection as *A. longifolia*, which he took to be *A. hirtella*. White fails to report that the latter had been treated as a subspecies of *A. longifolia* by Farmer and Bell (1985). Indeed, the latter workers annotated all of the Texas material on file at TEX as *A. l.* subsp. *hirtella* (Pennell) Farmer & Bell, annotations of which I concur, except for the rank rendered, as discussed below.

It is likely that White's misconception of the names concerned was occasioned by his reliance upon Woodson's (1945) seminal treatment of *Asclepias*. In this, Woodson failed to map (or cite) *A. hirtella* as occurring in Texas, not having seen sheets from the area, most of these assembled after his treatment; however, he did state, "*Asclepias hirtella* and *A. longifolia* are so closely related that they might better be treated as subspecies." Thus, the treatment of Farmer and Bell who, after the study and annotation of numerous specimens from 14 or more herbaria (including LL-TEX), made formal the infraspecific names concerned.

### BASIC TAXONOMY

*Asclepias longifolia* dates back to 1803, typified by plants from the eastern seaboard, "in sylvis Georgiae occidentalibus." *Asclepias hirtella* is typified by material from Jasper County, Missouri, this collected by Pennell himself and first published in 1919 (as *Acerates hirtella*). Since then it has been accounted for by a bevy of workers and is readily distinguished from *A. hirtella* by a number of characters, as well documented by Pennell in his original description. Indeed, *A. hirtella* is easily distinguished by pubescence alone, possessing a spreading (hirtellous) pubescence along the pedicels, *A. longifolia* having an upcurved-appressed pubescence, such vestiture characteristic throughout its range.

My examination of specimens at LL-TEX suggested that the nomenclatural treatment of Farmer and Bell was sound, but I was curious to know the extent of possible intergradation of the two taxa in Louisiana, hence my loan of material from LSU. I was surprised to find that typical elements of *A. longifolia* were to be found only in easternmost Louisiana (Parishes: Livingston, St. Helena, St. Tammany, Tangipohoa and Washington), the remainder referable to *A. hirtella*, at least by the pedicel vestiture mentioned in the above. Among the Louisiana specimens referred to *A. hirtella*, a few in southwestern Louisiana (Natchitoches Parish: *Lynch 3884*, LSU; *Featherman s.n.*, LSU) and closely adjacent Texas (Jasper Co.: *Orzell & Bridges 5678*, TEX; Newton Co.: *Correll 36544*, LL) were found to have an intermediate pedicel vestiture; these are mapped in Fig.1. It is likely

that such plants are a result of ancestral genetic contamination, and not extant hybridization, since I did not find the two taxa coexisting.

Because of the apparent intergradation, however limited, of *A. hirtella* and *A. longifolia* I prefer to treat the two taxa as infraspecific categories, as proposed by Farmer and Bell, but would instead count these as varieties, as argued by Turner and Nesom (2000) and yet others.

***Asclepias longifolia* var. *hirtella*** (Pennell) B.L. Turner, **stat. nov.**

Based upon *Acerates hirtella* Pennell, Bull. Torrey Bot. Club 46: 184. 1919.

### ACKNOWLEDGEMENTS

I am grateful to my colleagues Barney Lipscomb and Guy Nesom for reviewing the manuscript, and to LSU for the loan of specimens.

### LITERATURE CITED

- Farmer, J. and C.R. Bell. 1985. A new combination in *Asclepias*.  
Phytologia 57: 380. 1985.
- Turner, B. L. and G.L Nesom. 2000. Use of variety and subspecies and new varietal combinations for *Styrax platanifolius* (Styracaceae).  
Sida 19: 257-262.
- White, M. 2008. *Asclepias hirtella* (Apocynaceae) newly documented for the flora of Texas. J. Bot. Res. Inst. Texas 2: 1495-1496.
- Woodson, R.E., Jr. 1954. The North American species of *Asclepias*.  
Ann. Missouri Bot. Gard. 41: 1-211.

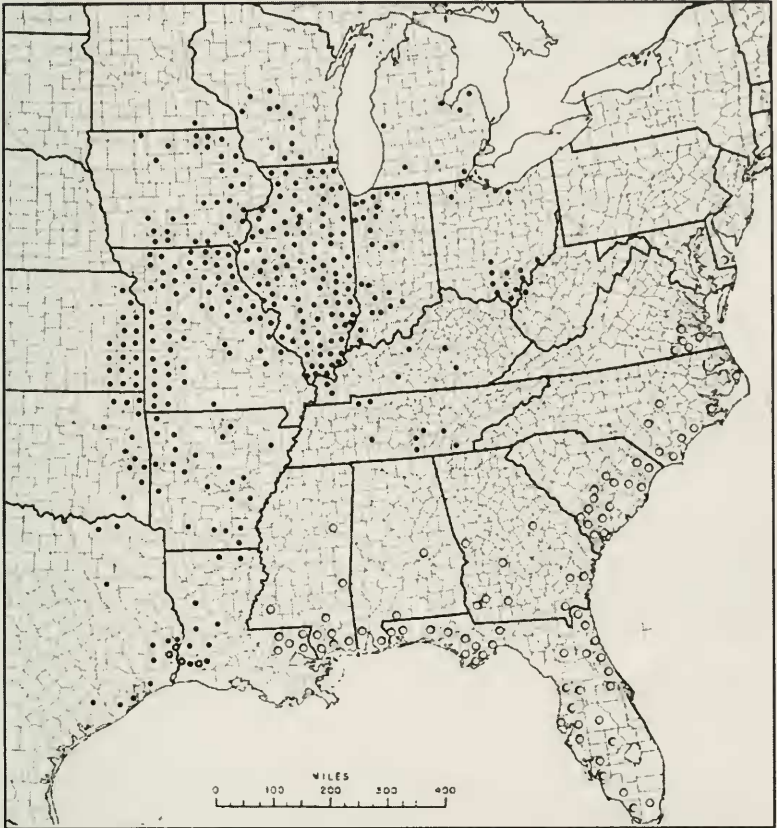


Fig. 1. Distribution of *Asclepias longifolia*: var. *hirtella* (dots); var. *longifolia* (open circles); possible intergrades (small circles).